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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,410	06/30/2003	Amanda Giang-Tien Nguyen	MFCP.103203	8066
45809 7590 12/26/2007 SHOOK, HARDY & BACON L.L.P. (c/o MICROSOFT CORPORATION) INTELLECTUAL PROPERTY DEPARTMENT 2555 GRAND BOULEVARD KANSAS CITY, MO 64108-2613			EXAMINER LETT, THOMAS J	
			ART UNIT 2625	PAPER NUMBER
			MAIL DATE 12/26/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/608,410	Applicant(s) NGUYEN ET AL.	
	Examiner Thomas J. Lett	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-33 have been considered but are moot in view of the new ground of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sabbagh et al (US 6,814,510 B1) in view of Lozano et al (USPN 7,168,003 B2).

Regarding claim 1, Sabbagh et al disclose a system (networked system of fig. 1) for automatic configuration upon installation of a network printer, wherein the network printer is associated with printer description files (data contained in printer manager 428, col. 5, lines 51-54), a driver (printer driver 462, col. 6, line 9) a spooler (print spooler 424, col. 4, line 65) and a port monitor (port monitor of fig. 4), the system comprising:

bi-directional application program interfaces (polling requests and responses, col. 2, lines 47-51) associated with the spooler for allowing the driver to generate a request and a response;

a syntax within the printer description files for representing and associating the request and the response with a print feature (a printer description data request, col. 2, lines 56-65), the syntax including one or more extensions to the printer description files (printer jammed, printer configuration data, etc., col. 2, lines 56-63);

extension files stored in the driver (data contained in printer manager 428, col. 5, lines 51-54) for relating bi-directional values and printer values, the bi-directional values configured to enable a client to generate a request and interpret a response (printer jammed, printer configuration data, etc., col. 2, lines 56-63);

a notification infrastructure (col. 5, lines 55-56) controlled by the port monitor for providing a bi-directional notification of configuration changes to the driver and selected applications (see figure 4); and

a computer storage medium for storing information related to automatic configuration upon installation of a network printer.

Sabbagh et al do not expressly teach that the bi-directional application program interfaces configured to seek a current configuration upon installation of the network printer and a computer storage medium for storing information related to automatic configuration upon installation of a network printer.

Lozano et al teach of a program that checks installed printers (reads on "upon installation") and the configuration is saved in a subfolder, see at least paragraph 0063.

Sabbagh et al and Lozano et al are analogous art because they are from the similar problem solving area of printer installation. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the installation configuration features of Lozano et al to Sabbagh et al in order to obtain a system comprising automatic printer installation. The motivation for doing so would be to store configuration files of installed printers.

Regarding claim 2, Sabbagh et al disclose a system of claim 1, wherein the notification infrastructure includes a drive printer event mechanism for informing the driver of a configuration change (printer change notification thread, col. 5, lines 55-56).

Regarding claim 3, Sabbagh et al disclose a system of claim 1, wherein the notification infrastructure includes a find next printer change notification (printer change notification thread, col. 5, lines 55-56) for allowing an application to monitor and receive configuration changes automatically (col. 2, lines 26-27).

Regarding claim 4, Sabbagh et al disclose a system of claim 1, wherein the syntax additionally comprises a plurality of keywords including a response type keyword for designating a bi-directional response type and a response data keyword for mapping between features of the network printer (fig. 6 shows the ability of a user to respond to a gui mapping of settings/features).

Regarding claim 5, Sabbagh et al disclose a system of claim 1, wherein the syntax provides tools for providing updates at a global level (settings may be replicated for each port, col. 5, lines 41-43), at an option level (fig. 5 shows enabling/disabling options), and at a feature level (updates to time intervals in Fig. 6).

Regarding claim 6, Sabbagh et al disclose a system of claim 1, further comprising independent hardware vendor extensions for enumerating specific features provided by a manufacturer (Xerox port monitor provides changes to the Windows operating system setup, see Fig. 5).

Regarding claim 7, Sabbagh et al disclose a system of claim 1, wherein the bi-directional application program interfaces provide tools for supporting a get action (get printer type performed by gui of fig. 5), a set action (set byte counting, see Fig. 5), and an enumerate action (updates to time intervals in Fig. 6).

Regarding claim 8, Sabbagh et al disclose a system of claim 1, wherein port monitor includes a mechanism for retrieving data (control flags) from a network printer database and for

accessing the extension files to transform the data (control flags are transformed into status information).

Regarding claim 9, Sabbagh et al disclose a system of claim 8, wherein the bi-directional application program interfaces provide a mechanism for returning the data retrieved by the port monitor (status of printer ready, jammed, low ink level, col. 2, lines 61-63).

Regarding claim 10, Sabbagh et al disclose a system (networked system of fig. 1) for facilitating client retrieval of bi-directional information upon installation of a network device, the system comprising:

- a set of bi-directional constructs within a printer description file (see Fig. 5 for bi-directional construction in a port setup file);

- a port monitor (port monitor of fig. 4) for receiving the bi-directional constructs, for retrieving data from the network device in accordance with the bi-directional constructs, transforming the data into an appropriate format (uses the LPR protocol which is capable of transforming file formats, see fig. 5), creating a channel (bi-directional settings, see fig. 6), and sending the transformed data (to printer); and

- a spooler (print spooler 424, col. 4, line 65) including a mechanism for receiving installation notifications (printer change notification thread, col. 5, lines 55-56) over the created channel from the port monitor and routing the installation notifications to selected applications.

Sabbagh et al do not expressly teach that the bi-directional application program interfaces configured to seek a current configuration upon installation of the network printer and a computer storage medium for storing information related to automatic configuration upon installation of a network printer.

Lozano et al teach of a program that checks installed printers (reads on "upon installation") and the configuration is saved in a subfolder, see at least paragraph 0063.

Sabbagh et al and Lozano et al are analogous art because they are from the similar problem solving area of printer installation. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the installation configuration features of Lozano et al to Sabbagh et al in order to obtain a system comprising automatic printer installation. The motivation for doing so would be to store configuration files of installed printers.

Regarding claim 11, Sabbagh et al disclose a system of claim 10, wherein spooler comprises a drive printer event mechanism (printer change notification thread, col. 5, lines 55-56) for informing a driver of a configuration change (printer change notification thread, col. 5, lines 55-56).

Regarding claim 12, Sabbagh et al disclose a system of claim 10, wherein the spooler comprises a find next printer change notification for allowing an application to monitor and receive configuration changes automatically (col. 2, lines 26-27).

Regarding claim 13, Sabbagh et al disclose a system of claim 10, wherein the set of bi-directional constructs includes a bi-directional query construct and a bi-directional response construct (col. 2, lines 60-65).

Regarding claim 14, Sabbagh et al disclose a system of claim 13, wherein the printer description file comprises a plurality of keywords including a response type keyword for designating a bi-directional response type and a response data keyword for mapping between features of the network printer (fig. 6 shows the ability of a user to respond to a gui mapping of settings/features).

Regarding claim 15, Sabbagh et al disclose a system of claim 14, wherein the bi-directional constructs and the keywords form a syntax providing tools for making automatic updates at a global level (settings may be replicated for each port, col. 5, lines 41-43), at an

option level (fig. 5 shows enabling/disabling options), and at a feature level (updates to time intervals in Fig. 6).

Regarding claim 16, Sabbagh et al disclose a system of claim 10, further comprising independent hardware vendor extensions for enumerating specific features provided by a manufacturer (Xerox port monitor provides changes to the Windows operating system setup, see Fig. 5).

Regarding claim 17, Sabbagh et al disclose a system of claim 10, further comprising bi-directional application program interfaces within the spooler for allowing transmittal of a bi-directional request and a bi-directional response (col. 2, lines 60-65).

Regarding claim 18, Sabbagh et al disclose a system of claim 17, wherein the bi-directional application program interfaces provide tools for supporting a get action (get printer type performed by gui of fig. 5), a set action (set byte counting, see Fig. 5), and an enumerate action (updates to time intervals in Fig. 6).

Regarding claim 19, Sabbagh et al disclose a system of claim 10, wherein the port monitor includes a mechanism for retrieving data (control flags) from a network printer database and for accessing extension files within a driver to transform the retrieved data (control flags are transformed into status information).

Regarding claim 20, Sabbagh et al disclose a system of claim 19, wherein the bi-directional application program interfaces provide a mechanism for returning the data retrieved by the port monitor (status of printer ready, jammed, low ink level, col. 2, lines 61-63).

Regarding claim 21, Sabbagh et al disclose a method for automatically configuring a system upon installation of a network printer within the system, wherein the system includes printer description files (data contained in printer manager 428, col. 5, lines 51-54), a driver

(printer driver 462, col. 6, line 9) a spooler (print spooler 424, col. 4, line 65) and a port monitor (port monitor of fig. 4), the method comprising:

getting a list of installable features (from printer list 458) and corresponding bi-directional requests (col. 2, lines 60-65) from the printer description files;

calling bi-directional application program interfaces from the spooler to query for a current configuration of the installable features (col. 2, lines 60-65);

mapping bi-directional schema (bi-directional characteristic, fig. 5) to a printer-specific protocol (LPR protocol, fig. 5);

generating and routing a bi-directional notification (col. 2, lines 60-65);

mapping bi-directional responses to a feature from the printer description file (printer ready, jammed, low ink level, col. 2, lines 61-63); and

updating an application (settings may be replicated for each port, col. 5, lines 41-43) with a current configuration.

Sabbagh et al do not expressly teach upon installation of the network printer.

Lozano et al teach of a program that checks installed printers (reads on "upon installation") and the configuration is saved in a subfolder, see at least paragraph 0063.

Sabbagh et al and Lozano et al are analogous art because they are from the similar problem solving area of printer installation. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the installation configuration features of Lozano et al to Sabbagh et al in order to obtain a system comprising automatic printer installation. The motivation for doing so would be to store configuration files of installed printers.

Regarding claim 22, Sabbagh et al disclose a method of claim 21, wherein routing a bi-directional notification comprises routing a drive printer event notification to the driver to inform the driver of a configuration change (col. 6, lines 8-9).

Regarding claim 23, Sabbagh et al disclose a method of claim 21, wherein routing a bi-directional notification comprises routing a find next printer change notification to an application to allow the application to monitor and receive configuration changes automatically (calls each printer, col. 4, lines 21-27).

Regarding claim 24, Sabbagh et al disclose a method of claim 21, further comprising implementing a plurality of keywords including a response type keyword for designating a bi-directional response type and a response data keyword for mapping between features of the network printer (col. 2, lines 60-65).

Regarding claim 25, Sabbagh et al disclose a method of claim 21, further comprising providing automatic configuration updates at a global level (settings may be replicated for each port, col. 5, lines 41-43), at an option level (fig. 5 shows enabling/disabling options), and at a feature level (updates to time intervals in Fig. 6).

Regarding claim 26, Sabbagh et al disclose a method claim 21, further comprising implementing independent hardware vendor extensions for enumerating specific features provided by a manufacturer (Xerox port monitor provides changes to the Windows operating system setup, see Fig. 5).

Regarding claim 27, Sabbagh et al disclose a method of claim 21, further comprising implementing the bi-directional application program interfaces to provide tools for supporting a get action (get printer type performed by gui of fig. 5), a set action (set byte counting, see Fig. 5), and an enumerate action (updates to time intervals in Fig. 6).

Regarding claim 28, Sabbagh et al disclose a method of claim 21, further comprising using the port monitor for retrieving data (control flags) from a network printer database and accessing extension files from the printer description files in order to transform the data (control flags are transformed into status information).

Regarding claim 29, Sabbagh et al disclose a method of claim 28, further comprising using the bi-directional application program interfaces for returning the data retrieved by the port monitor (status of printer ready, jammed, low ink level, col. 2, lines 61-63).

Regarding claim 30, Sabbagh et al disclose a computer-readable medium having computer-executable instructions for performing the method recited in claim 21.

Regarding claim 31, Sabbagh et al disclose a method for providing extensibility for a port monitor in order to enable vendors to define new mappings using existing public bi-directional schema and extensions to existing schema, the method comprising:

permitting use of an extension file (data contained in printer manager 428, col. 5, lines 51-54) capable of describing a mapping between bi-directional values and device-specific objects (printer ready, jammed, low ink level, col. 2, lines 61-63); and

allowing implementation of the extension file to facilitate a port monitor response to a bi-directional request (col. 2, lines 60-65).

Sabbagh et al do not expressly teach upon installation of a network printer and the extension file configured to seek a current configuration of the network printer.

Lozano et al teach of a program that checks installed printers (reads on "upon installation") and the configuration is saved in a subfolder, see at least paragraph 0063.

Sabbagh et al and Lozano et al are analogous art because they are from the similar problem solving area of printer installation. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the installation configuration features of Lozano et al to Sabbagh et al in order to obtain a system comprising automatic printer installation. The motivation for doing so would be to store configuration files of installed printers.

Lozano et al teach of a program that checks installed printers (reads on "upon installation") and the configuration is saved in a subfolder, see at least paragraph 0063.

Sabbagh et al and Lozano et al are analogous art because they are from the similar problem solving area of printer installation. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the installation configuration features of Lozano et al to Sabbagh et al in order to obtain a system comprising automatic printer installation. The motivation for doing so would be to store configuration files of installed printers.

Regarding claim 33, Sabbagh et al disclose a method of claim 31, wherein the extension file comprises independent hardware vendor extensions of standard bi-directional schema (Xerox port monitor provides changes to the Windows operating system setup, see Fig. 5).

3. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sabbagh et al (US 6,814,510 B1) in view of Lozano et al (USPN 7,168,003 B2) and further in view of Terrill et al (US 20020188646 A1).

Regarding claim 32, Sabbagh et al in view of Lozano et al do not disclose that the extension file is an XML extension file.

Terrill et al teach of a port monitor facilitating requests and replies of an XML communication, see para. 0030.

Sabbagh et al in view of Lozano et al and Terrill et al are analogous art because they are from the similar problem solving area of printer installation. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the feature of Terrill et al to Sabbagh et al in view of Lozano et al in order to obtain an XML file of printer configuration information. The motivation for doing so would be to an open-standard language to customize constraints.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Lett whose telephone number is (571) 272-7464. The examiner can normally be reached on 8-4:30pm.

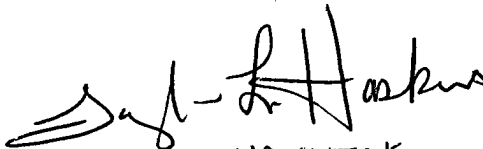
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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